GRID DEPLOYMENT OFFICE

FACT SHEET

GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Established by the Bipartisan Infrastructure Law, the U.S Department of Energy's Grid Deployment Office is administering a historic $10.5 billion investment via the Grid Resilience and Innovation Partnerships (GRIP) program to enhance grid flexibility, improve the resilience of the power system against growing threats of extreme weather and climate change, and ensure American communities have access to affordable, reliable, clean electricity when and where they need it.

IMPROVING GRID EFFICIENCY, RELIABILITY, AND FLEXIBILITY IN ARKANSAS

The Arkansas Valley Electric Cooperative Corporation (AVECC) aims to increase efficiency, reliability, and flexibility through the development of a Smart Grid using proven industry technologies that are connected and controlled by supervisory control and data acquisition (SCADA) software. The proposed grid enhancing technologies include advanced metering infrastructure (AMI), vacuum fault interrupter circuit reclosers, conservative voltage reduction (CVR) capable regulators, and real-time feedback switched capacitor banks.

Anticipated Outcomes and Benefits

The project will increase efficiency, reliability, and flexibility of AVECC's distribution grid to enhance lives within the rural cooperative territory and Justice40 **disadvantaged communities** by reducing grid maintenance costs and environmental impacts, as well as improving safety for electric utility workers and the community. These benefits include:

- Increased device coordination and decreased restoration times by improving fault isolation and faster response time during outages.
- Proper load management, system balancing, voltage awareness, power factor correction, fast outage management, and early event detection by visualizing the entire distribution grid's health and load information from a remote location.
- Layered security approach consisting of both hardware and software securities, anti-malware technology, and proprietary protocols, enabling the Schweitzer Engineering Laboratories (SEL) equipment to be used in this project with guards against cyber attackers.
- Replacement of outdated oil-filled equipment with vacuum interrupter equipment to significantly reduce wildfire risks by eliminating flammable material expulsion in the event of a failure.
- Eighty percent of service area receiving Smart grid upgrades will be in Justice40 eligible communities with high energy burdens.
- Decreased maintenance expenditures by about $500,000 per year and elimination of approximately 2,600 gallons of waste oil per year since the proposed technology requires maintenance approximately every 10 years and does not include the creation of any waste oil.
- Training workforce focused on the design, installation, operation, and maintenance of smart grid technologies deployed through this project through the administration of 200 hours per budget period of training.

PROJECT DETAILS

- **Project:** Beyond AMI to True Grid Intelligence with Distribution Automation
- **Applicant/Selectee:** Arkansas Valley Electric Cooperative Corporation
- **GRIP Program:** Smart Grid Grants (Bipartisan Infrastructure Law, Section 40107)
- **Federal cost share:** $18,304,363
- **Recipient cost share:** $18,310,825
- **Project Location:** Northwest and South Arkansas
- **Project type:** Resilience and Sectionalization

HELPFUL LINKS

- Grid Resilience and Innovation Partnerships Program
- About the Grid Deployment Office

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